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Operational Fires: Improving Doctrine to Apply the Operational Art to Fires

By

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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Abstract

OPERATIONAL FIRES: IMPROVING DOCTRINE TO APPLY THE OPERATIONAL ART TO FIRES

This paper analyzes whether joint doctrine adequately provides a framework for the Joint Force Commander to apply the operational art to fires. With the increased lethality of precision and the force protection offered by standoff range, fires will continue to play an increased role in campaign plans of the future. Joint doctrine should enable the Joint Force Commander to employ the facets of operational art to the function of fires.

Operation Desert Storm demonstrated the capabilities and the challenges of employing fires at the joint-operational level. Operational fires facilitated the rapid collapse of Iraqi ground forces during the coalitions four day ground offensive. Friction, however, arose between the ground and air components, both while fires were shaping and during the ground offensive. The doctrine developed since Desert Storm still leaves unanswered questions concerning who is responsible for operational fires and where they are delivered.

This paper recommends that joint doctrine be developed for operational fires. New joint doctrine should prescribe the direction of joint-operational fires under a single joint command. Doctrine should also address how the battle space should be divided to facilitate the Joint Force Commander's concept of fires. Finally, Doctrine should anticipate that maneuver may be conducted to support operational fires.

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INTRODUCTION

From Operation Desert Storm in 1991 to Operation Enduring Freedom today, fires have played a larger role in the U.S. application of military force. Technology has increased the ability to deliver fires with precision and from greater range. With the increased lethality of precision and the force protection offered by standoff range, fires will continue to play an increased role in campaign plans of the future. This role is embodied in Joint Vision 2020, where precision engagement is one of the four operational concepts of the joint force of the future. Joint doctrine, however, does not adequately lay out a framework for the Joint Force Commander to synchronize the effects of fires at the operational level.

Operational fires are not defined in joint doctrine. Joint doctrine does say that fires are employed to achieve objectives at the tactical, operational and strategic levels of war. To identify the gap that exists in doctrine today, I will begin with the definitions that exist for fires at the strategic and tactical levels of war. Having identified that fires do more for the operational commander than strategic attack and tactical fire support, this paper will examine Operation Desert Storm and show the capabilities and challenges of employing fires at the joint-operational level. I will then analyze the service and joint doctrine developed since Desert Storm and show where the friction and fault-lines still exist. Finally, I will propose recommendations that should be incorporated in future joint doctrine.

Operational fires are different than strategic fires. Strategic attacks are conducted against vital targets and aimed at destroying a nation's will or at eliminating key infrastructure within an adversary state. At the national-strategic level, the increased capability of delivering precision effects may lead the National Command Authority, through the Joint Force Commander (JFC), to directly target an adversary's political or economic structure. From World War II to today, however, strategic fires have not proved to be effective at accomplishing strategic objectives. Currently, Joint Publication 3-70, Strategic

- Attack is under development. Strategic attacks are a capability within the joint force and precision engagement increases their efficiency. The capability to achieve strategic objectives by applying the operational art at the operational level of war, however, is still required.

Fires are also an element of warfare at the tactical level, where battles and engagements are fought. At the tactical level, units use fire support to engage enemy forces in order to accomplish tactical objectives. Joint doctrine defines fire support as “fires that directly support land maritime, amphibious and special operations forces to engage enemy forces, combat formations, and facilities in pursuit of tactical or operational objectives”.# Since tactical fires are delivered in support of friendly forces, tactical fires require detailed coordination during planning and execution to prevent fratricide and allow for integration into the tactical commander’s scheme. Joint Publication 3-09, Doctrine for Joint Fire Support, lays out a system that enables the joint force to conduct the necessary detailed battle space planning and coordination for effective fire support at the tactical level.

At the operational level, however, fires can do far more for the operational commander than just support land maritime, amphibious and special operations forces achieve operational objectives. By employing operational art, the joint force commander employs military forces to achieve operational and strategic objectives through the conduct of a larger campaign or major operation.# Precision gives the Joint Force Commander the ability to achieve operational objectives, like the destruction of an enemy force or function, with fires. The Joint Force Commander is responsible for employing all components of the joint force’s capability to deliver precision fires at the operational level.

The Joint Force Commander employs operational art to the conduct of a campaign or major operation.# Joint doctrine should enable the Joint Force Commander to employ the facets of operational art to the function of fires. It should facilitate simultaneous operations at the tactical, operational and strategic levels and across the full depth of the Joint Operations Area (JOA).# It should allow the joint force to achieve the synergistic effects of

- integrating all components of the joint force in all dimensions. Finally, it should anticipate that operational maneuver may be conducted to support operational fires. It is the Joint Force Commander who ensures the synchronization of all of the operational functions of the force, including operational fires.

OPERATIONAL FIRES DURING DESERT STORM

Operation Desert Storm, conducted to evict Saddam Hussein's Iraqi forces from Kuwait, demonstrated both the capabilities and challenges of employing fires at the joint-operational level. All components, (land, air and maritime) of the joint force were employed during the campaign. Joint fires were employed to achieve strategic, operational and tactical objectives throughout the campaign. The challenges to plan, integrate, and deconflict joint fires were daunting.

Some fires, aimed directly at the Iraqi leadership and indirectly at Iraqi national will, were strategic. U. S. Central Command (CENTCOM) inherited elements of an air plan (Instant Thunder) designed by Colonel John Warden and the air planning staff.# The Instant Thunder plan was designed to incapacitate Iraqi leadership and destroy the Iraqi capability to wage war. It was initially targeted at Iraqi: leadership, petroleum and electricity targets, and infrastructure and transportation. Instant Thunder was developed as a stand-alone plan and was based on the assumption that strategic attacks alone could compel Iraq to withdraw from Kuwait.# CENTCOM incorporated Instant Thunder into its campaign plan and expanded it by adding operational targets to include Iraqi military forces. Ultimately, strategic fires were delivered simultaneously with other fires throughout the campaign.

Within CENTCOM, General Horner, acting as Joint Forces Air Component Commander (JFACC), and his staff developed an expanded fires plan.# From the outset, the JFACC and his staff went beyond planning for and tasking fixed wing aviation assets and integrated all components of the joint force. On January 17th, during the initial strikes, Army AH-64 Apache helicopters attacked Iraqi air defense sites, opening air approaches into Iraq. The U.S.S. Wisconsin fired Tomahawk land attack missiles (TLAM's), targeted at the Baghdad electrical grid. Late in the first day of the campaign, an Army Multiple Launch Rocket System (MLRS) fired tactical missiles (ATACMS) at an Iraqi SAM site located over

100 kilometers away.# These examples of fires from January 17th, show that the Joint Force Commander, through the JFACC, was able to integrate the capabilities of all components of the Joint Force.

"We will initially attack into the Iraqi Homeland using airpower to decapitate his leadership, command and control, and eliminate his ability to reinforce Iraqi ground forces in Kuwait and Southern Iraq. We will then gain undisputed air superiority over Kuwait so that we can subsequently and selectively attack Iraqi ground forces with air power in order to reduce his combat power and destroy reinforcing units."# **Gen Norman Schwarzkopf, Commander, U. S. Central Command (CENTCOM)**

The above statement from General Schwarzkopf, (Commander, U. S. Central Command), acting as the Joint Force Commander, spelled out his concept of fires and identified objectives for fires prior to launching the ground offensive. According to the plan, between seven and eleven days after commencing strikes on Baghdad, the focus of effort would shift to striking Iraqi fielded forces.# Based on the recommendation of the JFACC and his staff, the Joint Force Commander set an arbitrary goal of reducing Iraqi armored and mechanized forces by 50%.# Additional operational objectives included interdicting Iraqi lines of communication and cutting Iraqi escape routes out of Kuwait. Though the priority was to shift from strategic targets in Baghdad to fielded forces in Kuwait, strategic and operational fires were to continue concurrently.

Were the CINC/JFC's objectives for fires achieved? The numerical goal of 50% reduction of Iraqi forces was arbitrary, difficult to measure accurately, and did not take into account the other affects fires would have beyond destruction of vehicles and armor. By employing innovative tactics, like using forward looking infra-red (FLIR) to identify Iraqi armor and attacking them with Laser Guided munitions (dubbed "tank plinking"),# and establishing "kill boxes" to funnel aircraft to targets under the control of airborne air controllers,# coalition aircraft had great success against Iraqi armor. A full 23,430, or 69%, of all strikes were flown against Iraqi ground forces, while only 2,050 or 6% were directed at

strategic targets like Iraqi leadership, industry and infrastructure. Though accurate battle damage assessment was difficult, by February 23rd the Joint Force Commander and his staff did believe the Iraqi force was ready to collapse.# Overall, the Joint Force Commander's goals of reducing the Iraqi combat power and shaping the battle for ground forces were achieved through operational fires prior to launching the ground offensive.

"Air support related issues continue to plague final preparation of combat operations and raise doubts concerning our ability to shape the battlefield prior to the initiation of the ground campaign. Too few sorties are made available to VII Corps and XVIII Corps. And while air support missions are being flown against 1st echelon enemy divisions, Army nominated targets are not being serviced. Efforts must be taken now to align the objective of the air and ground campaign and ensure the success of our future operation." ARCENT Situation report February 18, 1991.#

Though operational fires achieved the JFC's desired effects, the process of allocating resources (apportionment of air and location of ISR assets) and targeting enemy forces was not without friction. The above situation report, submitted just six days prior to the ground offensive, shows the Joint Force Commander and the Army Component Headquarters had different opinions about how well fires were shaping the battlefield. The Marine Component Headquarters ashore, the First Marine Expeditionary Force (I MEF), also believed the JFACC was not adequately addressing targets that would affect their maneuver. General Boomer, the I MEF Commander, actually pulled Marine aviation assets out of the control of the JFACC so that they could address targets to his front.# Some have argued that these discrepancies evolved because General Schwartzkopf failed to appoint a Joint Force Land Component Commander (JFLCC).# They believe that a JFLCC would have been capable of seeing the entire battlefield and coordinating directly with his component counterpart, the JFACC. Nevertheless, a lack of coordination, a cumbersome Air Tasking Order (ATO) process requiring delays from target nomination to attack, and limited intelligence and accurate BDA capabilities caused friction during the "shaping" component of operational fires.

Coalition forces launched a ground offensive on February 24th 1991. Now tactical fires would play a large role in facilitating ground maneuver. Still, the Joint Force Commander had the ability to engage Iraqi forces throughout the theater using operational fires. A means of deconflicting the Joint Force Commander's ability to deliver operational fires and the maneuver forces ability to conduct tactical fires is the establishment of the Fire Support Coordination Line (FSCL). Targets beyond the FSCL can be attacked without coordination. Short of the FSCL, all air to ground and surface to surface fires are controlled by the appropriate land force commander.# If the maneuver of coalition ground forces caused the Iraqis to flee, the JFACC could strike Iraqi forces expeditiously beyond the FSCL.

"Our problem was not how much air we had. Our problem started to become how much air space we had and wedging what we had into that piece of airspace".# Col. Reavey, Joint Air Ops. Center

During the ground offensive, the location of the FSCL did not facilitate the JFACC's ability to take advantage of the results of coalition maneuver. On the morning of 27 February, XVIII Corps extended the FSCL north of the Euphrates River so that they could maneuver his organic Apache helicopters to interdict Iraqi Forces fleeing Basra.# Though the Corps Commander could interdict some Iraqi forces, the JFACC was capable of bringing significantly more fires to bear on the fleeing Iraqis. This was duplicated on the 27th of February when VII Corps extended the FSCL to the East of the coastal highway, leading North from Kuwait City, in anticipation of their attack to the East.# The Corps commander was concerned about breaking through the Iraqi's and exposing his force to fratricide as they maneuvered toward the Kuwaiti coast. This shift in the FSCL also had significant effects on the ability of the JFACC to engage Iraqi forces throughout the theatre of operations.

Conclusions

Clearly, operational fires played a large role throughout Desert Storm and facilitated the rapid collapse of Iraqi ground forces during the coalitions four day ground offensive. The Joint Force was able to conduct strategic, operational and tactical fires

simultaneously and throughout the depth of the theatre. The Joint Commander, primarily through the JFACC, was able to synchronize, integrate and deconflict the fires of all components of the joint as well as combined force. Finally, advances in technology showed that fires could be delivered with increased precision, thus increasing their ability to destroy enemy fielded forces.

Coordination difficulties developed concerning targeting priorities, air apportionment, and ISR coverage, particularly while the joint force shaped the battlefield prior to ground maneuver. The JFACC staff was not joint, but was manned predominately by the Air Force.# Despite the existence of a Joint Targeting Control Board (JTCB), subordinate operational ground commanders (Corps and MEF) did not believe that their targeting priorities were adequately addressed. Emplacement of fire support control measures, like the FSCL, did not facilitate the continuous attack of Iraqi forces throughout the theatre during the ground offensive. Though the employment of fires was a success at the operational level, there were problems during Operation Desert Storm that should since have been addressed in the Joint Doctrine of today.

CURRENT DOCTRINE

"Whereas in the past we could chop up the battlespace and delegate the "pieces" to the components, as battlespace becomes more nonlinear and combat power is applied more asymmetrically, this is a luxury we can no longer afford."# **General George Joulwan**
USCINCEUR

What does current doctrine say about operational fires? Doctrine should provide for how the three-dimensional battlespace is divided. It should address who conducts operational fires and what objectives operational fires are capable of accomplishing. Additionally, it should define the relationship of fires and maneuver at the operational level. Before analyzing joint doctrine, it is important to review service doctrine and identify where the fault-lines exist between the services.

To find a definition of operational fires, one has to turn to Army Doctrine. In their

new capstone operations document, FM 3-0, Operations, the Army defines operational fires as “the operational-level commander’s application of lethal and non-lethal weapons effects to accomplish objectives during a campaign or major operation.”# It specifically states that operational fires are not the same as fire support. The example used as an objective of operational fires is interdiction of major enemy forces. Operational fires do not necessarily occur simultaneously with, nor support operational maneuver, though combining them creates destructive one-sided battles. The example given within FM 3-0 of synchronizing the effects of operational fire with operational maneuver is the XVIII Corps attack during the Desert Storm ground offensive.

The Marine Corps does not recognize operational fires in MCDP-10, Operations. Instead, the Marine Corps sees the Marine Air Ground Task Force (MAGTF) conducting deep operations.# Deep operations shape the battlespace to influence future operations. The MAGTF has an organic capability to conduct deep operations, but may integrate its efforts with Joint and national level assets. Interdiction through fires is an example of deep operations.# Since the MAGTF commander will use organic air assets to conduct deep operations, location of the FSCL within his area of operations facilitates MAGTF air interdiction. In the Marine Corps concept of fighting the total battlefield, MCDP-10 emphasizes that the FSCL is not a boundary between air and ground forces and should not be used as one.#

With some input from the Marine Corps, the Army has developed the Joint Force Land Component Commander (JFLCC) Handbook. The JFLCC handbook points out that the JFLCC may be tasked by the Joint Force Commander to conduct operational fires outside of the land area of operations (AO).# Within the Land AO, the JFLCC conducts operational fires with organic and joint interdiction assets to shape the battle space. Additionally, the Handbook points out how the JFLCC provides input to the Joint Force Commander for Joint Force operational fires and Joint interdiction efforts.#

The Air Force divides functions below strategic attack as counter-air, counter-

sea or counter-land. Counter-land missions are subdivided as interdiction or close air support. Interdiction operations are conducted to divert, disrupt, delay or destroy surface forces before they are used against friendly forces.# Potential targets for interdiction include C2, logistics, lines of communication, and fielded forces. Air Force Basic Doctrine (AFDD-1) goes on to point out that interdiction needs to be conducted by a single commander coordinating all forces that contribute to interdiction and interdiction efforts should not be constrained by battlefield boundaries.# Additionally, AFDD-1 goes beyond pointing out that interdiction supports maneuver, and also says that maneuver can support interdiction efforts.

Though Joint Publication 3-09, Doctrine for Joint Fire Support, covers fires in support of maneuver forces, not operational fires, it does provide the “conceptual framework” for all joint fires.# This framework does not provide for unity of command for joint fires, but does provide for a Joint Targeting Control Board (JTCB) and a Joint Fires Element to assist the joint force commander’s staff in planning fires and resolving targeting disputes. It says that the FSCL is established by the Corps level ground commander, though notice is given that differing placements by Corps or equivalent MEF’s may cause such a challenge that the Joint Force Commander or JFLCC will have to intervene.#

Joint Publication 3-03, Doctrine for Joint Interdiction Operations, provides doctrine for interdiction efforts throughout the Joint Operations area in support of the Joint Force Commander’s overall strategy.# This publication is as close as the Joint Force comes today to doctrine for operational fires. It designates the JFACC as the supported commander for the Joint Force Commander’s overall air interdiction effort, though stops short of saying all interdiction efforts should be unified. JP 3-03 states that just as interdiction may support operational maneuver, conversely maneuver may facilitate interdiction. JP 3-03 states that subordinate operational commanders (Corps, MEF, Maritime, etc.) shape their own battle space with operational fires, forwarding requests for additional fires to the JFACC or the Joint Force Commander.#

Where does doctrine allow the Joint Force Commander to integrate the abilities of all components of the Joint Force to deliver operational fires during his campaign? The Army's concept of operational fires is captured in JP 3-09, with a bottom-up system and a JTCB and JFE to help prioritize requests, allocate resources and deconflict fires. The Air Force's concept of a single commander for interdiction/operational fires is captured in JP 3-03, with a top down system, centralized command, and decentralized execution, though over what battle space is unclear. To further complicate matters, the Marine Corps concept of a single commander shaping and controlling the battle space is captured in Joint Publication 3-02, Joint doctrine for Amphibious operations, where the Joint Maritime Commander controls both the ground and the airspace in an Amphibious Operations area.#

CONCLUSIONS

Clearly, Operation Desert Storm showed the effects that fires, employed throughout the Joint Operations Area, could have toward achieving operational objectives. The Joint Force Commander should integrate operational fires into an overall campaign plan. To achieve the Joint Force Commander's objectives, operational fires require unity of command, exercised through centralized planning and decentralized execution. This allows the Joint force to use the right platform at the right time and place, avoids duplication of effort, and ensures fires are integrated into the operational scheme. Whereas in the past fires created the conditions for maneuver, maneuver will be used more frequently to support fires. While Desert Storm demonstrated that operational fires are a key component of a campaign, precision engagement has increased their utility.

Some may argue that the joint doctrine of today, developed in the after-math of Desert Storm has already addressed the challenges of employing fires throughout the joint operational area. The Joint Fires Element (JFE) was developed to enhance the capability of the Joint staff, specifically the J-3, to plan and synchronize fires.# The Joint Targeting Coordination Board will better address targeting coordination and a JFLCC will be better able to coordinate with a JFACC. The joint fire support system outlined in JP 3-09, with elements like the Army Battlefield Coordination Detachment coordinating with the Joint Air Operations Center, will coordinate execution. They argue that subordinate operational commanders have increased capabilities to strike deep into their own operational area and, while executing within the guidance of the JFC, they should be left to synchronize their own fires. Attempting to execute operational fires across the joint operations area may deny the JFLCC the operational fires he needs during shaping operations, and when conducted in concert with maneuver, this will slow operational tempo.

This approach, however, denies the Joint Force Commander the ability to achieve the synergistic effects of applying all components of the joint force. This doctrinal construct is what caused confusion when Army Apache Helicopters were to be employed

during Operation Allied Force. The Army did not anticipate Apache helicopters being employed independently as part of a joint fires campaign.# Additionally, independent operational fires violates unity of command and denies the Joint Force Commander the ability to mass the effects of fires at the time and place of his choosing.

The concept of a unified joint operational fires campaign is implied in JP 3-03, however key questions remain. It does not explain over what battle space the joint interdiction campaign is executed. It provides that the Joint Force Commander develops a concept of fires that establishes tasks and priorities, makes decisions on apportionment, and then leaves the execution of the joint interdiction campaign to the JFACC.

Is the JFACC truly organized to command the air component simultaneously with planning and deconflicting all operational fires?

For the Joint Force Commander of the future to apply the dynamic capability of precision engagement at the operational level, more than just doctrine needs to be addressed. C4ISR capabilities and limitations will greatly influence the ability of the joint force of the future to employ operational fires. The improved capability of precision engagement, like all of the operational concepts, is achieved through the co-evolution of doctrine, organization, training, material, leadership and education, people and facilities (DOTMLPF).# This paper primarily dealt with doctrine and doctrine should be the blueprint upon which the joint force of the future is organized, equipped and trained.

Either separate Joint Doctrine should be developed for operational fires, or JP 3-09 should be rewritten to address operational fires. Within Joint Doctrine should be the following principles:

- 1) Joint-Operational fires should be directed under a single joint command. If this is to be an operational task of the JFACC, serious analysis and testing is required to see if this single component can integrate all component capabilities to provide operational fires, while simultaneously coordinating airspace and directing strategic attacks. It may be time for a Joint Fires Component Commander.

2) The battle space needs to be divided to facilitate the Joint Force Commander's concept of operational fires. The Fire Support Coordination Line, a permissive tactical fire support coordination measure within the land component, is not an adequate divider between the Joint Force Commander's ability to engage targets and his subordinate operational commanders. The Joint Force Commander should establish battle space where he engages beyond subordinate ground and maritime components.

3) Maneuver may be conducted to support operational fires. Joint Doctrine recognizes the dynamic effect of combining maneuver with fires.[#] The doctrinal implications, however, of the JFLCC or JFMCC conducting maneuver in support of the JFACC or a JFCC ability to employ fires is not addressed.

¹ Joint Chiefs of Staff, Doctrine for Joint Interdiction Operations, Joint Pub 3-03 (Washington, DC: 10 April 1997), II-1.

² Army, Operations, FM 3-0 (Washington, DC: 14 June 2001), 4-6.

³ Marine Corps, Marine Corps Operations, MCDP-10, (Washington, DC: 27 September 2001)

⁴ Ibid 6-21.

⁵ Ibid. 4-9.

⁶ Army, Joint Force Land Component Commander Handbook, (Fort Monroe VA: TRADOC: July 2001), II-6.

⁷ Ibid. B-7.

⁸ AFDD-1, p. 51.

⁹ Ibid. 48.

¹⁰ Ibid. 49.

¹¹ Joint Pub 3-09, A-5.

¹² Joint Pub 3-03.

¹³ Ibid. II-6.

¹⁴ Joint Chiefs of Staff, Joint Doctrine for Amphibious Operations, Joint Pub 3-02 (Washington, DC: 10 October 2001), II-5.

¹⁵ Joint Pub 3-09, I-5.

¹⁶ Lambeth, 209-210.

¹⁷ Ibid. 34.

¹⁸ Joint Pub 3-03. Viii.

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